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PENSOFT

First records of water scavenger beetle species (Coleoptera, Hydrophilidae) from Quindío Department, Colombia

Liza M. González-Rodríguez,[1] Andrea L. García-Hernández,[1] Bruno Clarkson[2]

1 Universidad del Quindío, Centro de Estudio e Investigaciones en Biodiversidad y Biotecnología de la Universidad del Quindío, Grupo de Estudios en Artrópodos del Quindío, Carrera 15 Calle 12 Norte, Armenia, Quindío, Colombia. **2** Departamento de Entomologia, Museu Nacional, Universidade Federal do Rio de Janeiro, Quinta da Boa Vista, São Cristóvão, CEP 20940-040, Rio de Janeiro, RJ, Brazil.
Corresponding author: Liza M. González-Rodríguez, lizmgr287@gmail.com

Abstract
A list of species of Hydrophilidae from Quindío Department, Colombia is presented. This list is based on recently collected specimens, a survey of data from the literature, and specimens deposited in the Colección de Insectos de la Universidad del Quindío (CIUQ). Twenty-three species, including 16 new records from Colombia, are listed. Information about biology of each species and a checklist of the overall Colombian species are given.

Key words
Aquatic beetles; checklist; new records; range extension; Neotropics; South America.

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Introduction

Currently, there are few taxonomic and ecologic published studies about Colombian aquatic beetles. Studies on specific groups or families are even fewer. Data on biodiversity of the Hydrophilidae of Colombia is extremely limited, as well as information about habitat preference, feeding habits, life cycle, and geographic distribution of species (Arias-Díaz et al. 2007). According to the major species catalogues (Hansen 1999, Short and Hebauer 2006, Short and Fikáček 2011), there are 34 species recorded from Colombia, including representatives of the subfamilies Acidocerinae (2 spp.), Enochrinae (2 spp.), Hydrophilinae (20 spp.), and Sphaeridiinae (10 spp.). The present list contributes to the knowledge of diversity and biology of Colombian hydrophilid beetles andadds new localities in Quindío Department.

Methods

Specimens were examined, identified, measured and illustrated using a Stemi 2000-C ZEIZZ microscope with attached AxiomCam ERc 5s camera. Taxonomic identification of the specimens was done with the support of the keys and information by Leech (1943), Mouchamps (1963), Young (1967), Bachmann (1969), Gundersen (1977), Smetana (1978), Oliva (1981, 1987, 1989, 1994), Fernández (1988, 1989, 1994, 1997), Oliva et al. (2002), Short (2004), Komarek and Beutel (2007), Clarkson and Ferreira-Jr (2009), Arce-Pérez and Morón (2013). Morphological terminology follows mainly Hansen (1991), with some terminology adapted from Komarek (2004).

The geographic distribution of each species was taken from the publicationa already cited and from major species catalogues (Zaitzev 1908, Blackwelder 1944, Hansen 1999, Short and Hebauer 2006, Short and

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Fikáček 2011), as well as from Bedel (1891), Régimbart (1901), Orchymont (1921a, 1921b, 1922), Mouchamps (1959), Wooldridge (1973), Smetana (1975, 1978, 1984), Gundersen (1977), Fernández (1982, 1988, 1989, 1997), Oliva (1983, 1994, 2010, 2014), Short (2004, 2005), Komarek (2005), Fikáček and Short (2006), Peck (2006), Short and Torres (2006), García-Hernández (2009), Oliva and Short (2012), Arce-Pérez and Morón (2013), and Deler-Hernández et al. (2013). All the locality data was provided as detailed as available in the above papers. Records of species available in old catalogues (e.g., Zaitzev 1908, Blackwelder 1944) were confirmed with the examination of the literature above cited. Information on species synonymy was obtained from Fernández (1982, 1988, 1989), Oliva (1989), Hansen (1991, 1999), Komarek (2005), Oliva and Short (2012), and Fikáček and Vondráček (2014). The species are presented in alphabetical order but keeping the current classification of the Hydrophilidae as proposed by Short and Fikáček (2013). Lists of hydrophilid species from Colombia and the complete distribution of species from Quindío Department are shown in Tables 1 and 2, respectively, and a distributional map is presented (Figure 48).

Results

Subfamily Acidocerinae

Helochares abbreviatus (Fabricius, 1801) (Figs 1, 24)

Hydrophilus abbreviatus Fabricius 1801: 251. *Helochares* (s. str.) *abbreviatus* (Fabricius)—Orchymont 1936: 10.

Philydrus pallidus Castelnau 1840: 53, secondary homonym of *Hydrophilus pallidus* Rossi, 1972. Syn.: Orchymont 1936: 10

Philhydrus pallidus Castelnau—Gemminger and Harold 1868: 482.

Helochares pallidus (Castelnau)—Fleutiaux and Sallé 1889: 376.

Enochrus (*Lumetus*) *pallidus* (Castelanu)—Zaitzev 1908: 388.

Helochares (*Helochares*) *pallidus*—Orchymont 1926: 232–233.

Helochares (*Hydrobaticus*) *rufobrunneus* Balfour-Browne 1939: 293. Syn.: Spangler 1981: 158, Fernández 1982: 34.

Helochares (*Helochares*) *abbreviatus* Orchymont 1943: 55.

Diagnosis. Body 6.60–6.70 mm long. Dorsal punctation on head, pronotum and elytra evenly fine and sparse. Mesoventral process slightly elevated. Last abdominal ventrite deeply notched. Parameres longer than median

Table 1. List of species of Hydrophilidae from Colombia. * Without locality specification. ** Cited from Colombia by Blackwelder (1944), but not by Zaitzev (1908), Hansen (1999), Short and Hebauer (2006), and Short and Fikáček (2011). *** Recently recorded without nominal identification (Short et al. 2017).

Species	Geographic distribution
Subfamily Acidocerinae	
Globulosis sp.	Colombia [Meta]***
Helochares abbreviatus (Fabricius, 1801)	Argentina, Bolivia, Brazil, Colombia* [Quindío], Cuba, French Guiana, Granada, Panama, Paraguay, Suriname, Venezuela
Helochares atratus Bruch, 1915	Argentina, Brazil, Colombia [Quindío], Ecuador (?), Paragua
Helochares femoratus (Brullé, 1841)	Antigua and Barbuda, Argentina, Brazil, Colombia (?) [Nueva Granada], French Guiana (?)
Subfamily Chaetarthiinae	
Tribe Anacaenini	
Crenitulus solstitialis (Kirsch, 1873)	Bolivia, Brazil, Colombia [Quindío], Costa Rica, Guatemala, Mexico, Panama, Peru
Crenitulus suturalis (LeConte, 1866)	Canada to Argentina, Colombia [Quindío]
Subfamily Enochrinae	
Enochrus circumcinctus (Bruch, 1915)	Argentina, Colombia [Quindío], Paraguay, Uruguay
Enochrus lampros Kirsch, 1924b	Argentina, Bolivia, Brazil, Colombia [Quindío], Peru, Venezuela
Enochrus paraensis Fernández, 1997	Brazil, Colombia [Quindío]
Enochrus pigrans Knisch, 1925	Colombia [Valle del Cauca (Darién)]
Enochrus pygmaeus (Fabricius, 1792)	Bahamas, Colombia [Quindío], Cuba, Mexico, USA
Enochrus sharpi Gundersen, 1977	Colombia [Quindío], Mexico
Enochrus sublongus (Fall, 1924)	Argentina, Colombia [Quindío], Guatemala, Paraguay, USA
Enochrus tropicus (Kirsch, 1871)	Colombia [Cundinamarca (Bogotá)]
Subfamily Hydrophilinae	
Tribe Berosini	
Berosus festai Knisch, 1925	Colombia [Caldas? (S. José)], Ecuador
Berosus maculinus Knisch, 1921	Argentina, Bolivia, Brazil, Colombia**, Paraguay
Berosus nigrinus Knisch, 1921	Brazil, Colombia**
Berosus singularis Knisch, 1921	Brazil, Colombia**
Berosus truncatipennis Castelnau, 1840	Argentina, Bolivia, Brazil, Colombia [Quindío], Guatemala, Mexico, Nicaragua, Panama, Paraguay, Venezuela
Berosus wintersteineri Knisch, 1921	Brazil, Colombia**
Berosus zimmermanni Knisch, 1921	Argentina, Brazil, Colombia**, Paraguay
Derallus terranovae Oliva, 1983	Brazil, Colombia [Quindío]
Hemiosus aequatorialis Oliva, 1994	Colombia [Quindío], Peru, Venezuela
Tribe Hydrophilini	
Hydrobiomorpha colombica Mouchamps, 1959	Colombia*
Hydrophilus ensifer Brullé, 1837	Argentina, Bolivia, Brazil, Colombia*, Ecuador, French Guyana, Paraguay, Suriname, Uruguay
Tropisternus apicipalpis Chevrolat, 1834	Argentina, Bolivia, Brazil, Colombia* [Quindío], Costa Rica, Cuba, Lesser Antilles, Mexico, Nicaragua, Paraguay, Venezuela
Tropisternus collaris Fabricius, 1775	Argentina, Bolivia, Brazil, Colombia*, Cuba, Haiti, Lesser Antilles, Mexico, Paraguay, Peru, Puerto Rico, USA, Venezuela

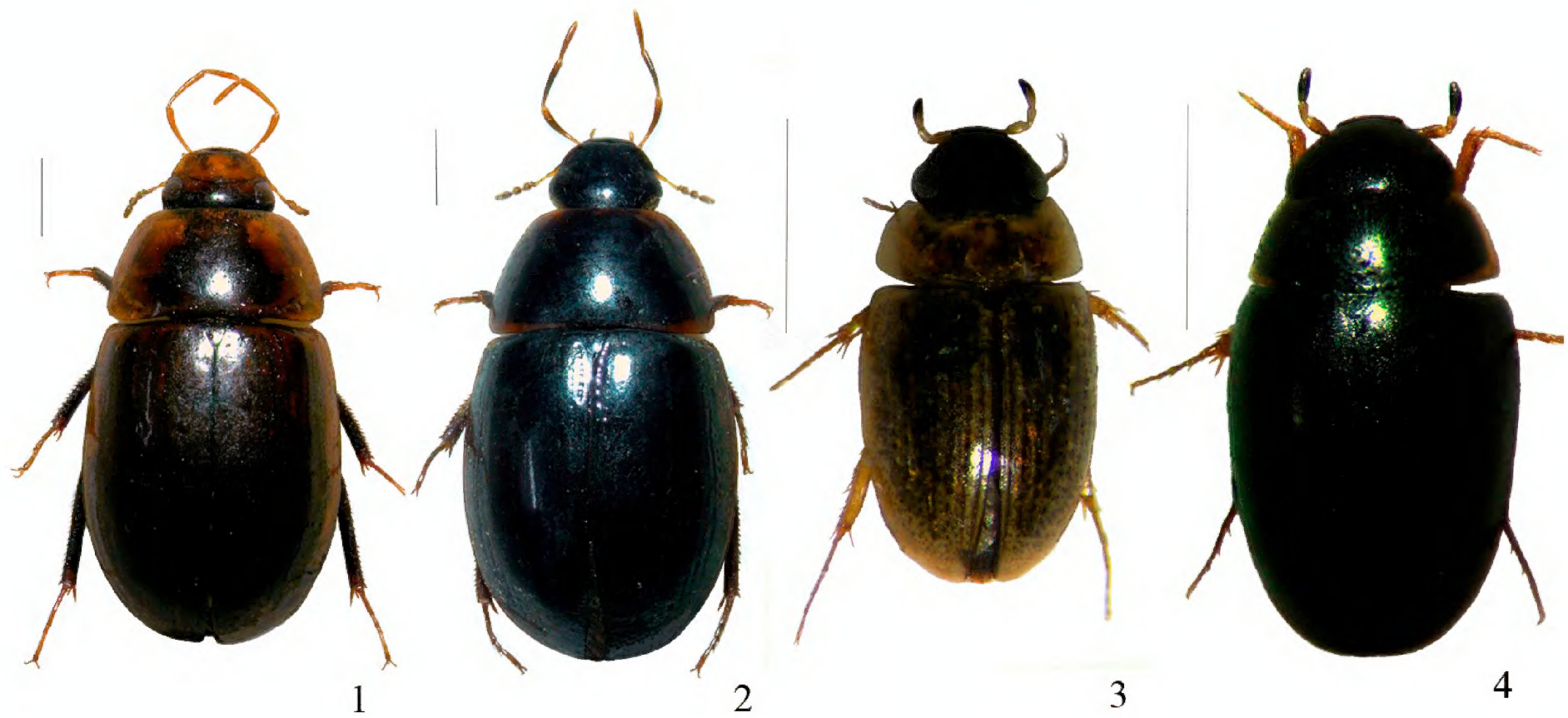
Continued

Table 1. *Continued.*

Species	Geographic distribution
Tropisternus knischi Orchymont, 1943	Colombia [Cauca, Quindío]
Tropisternus lancifer Sharp, 1883	Colombia [Cundinamarca (Bogotá), Nueva Granada?]
Tropisternus mergus Say, 1835	Argentina, Bolivia, Colombia*, Cuba, Guatemala, Honduras, Lesser Antilles, Mexico, Nicaragua, Panama, Paraguay Venezuela
Tropisternus oculatus Sharp, 1882	Colombia*, Mexico, Venezuela
Tropisternus ovalis Castelnau, 1840	Argentina, Brazil, Colombia*, Cuba, Guatemala, Mexico, Paraguay
Tropisternus sharpi Orchymont, 1922	Argentina, Brazil, Colombia* [Quindío], Paraguay, Uruguay, Venezuela
Tribe Laccobiini	
Oocyclus luteus García-Hernández, 2009	Colombia [Quindío (Pijao)]
Oocyclus morgani García-Hernández, 2009	Colombia [Quindío (Calarcá)]
Paracymus giganticus Wooldridge, 1973	Colombia [Cundinamarca (Bogotá, Tocancipá)]
Paracymus indigens Wooldridge, 1969	Colombia*, Costa Rica, Cuba, El Salvador, Guatemala, Honduras, Mexico
Paracymus insularis Wooldridge, 1973	Colombia [Magdalena (Barranquilla)]
Paracymus limbatus Wooldridge, 1973	Bolivia, Brazil, Colombia [Meta (Villavicencio)], Paraguay, Peru, Trinidad and Tobago, Venezuela
Subfamily Sphaeridiinae	
Tribe Coelostomatini	
Dactylosternum subdpressum (Castelnau, 1840)	Bolivia, Brazil, Colombia*, Cuba Guatemala, Guayana, Mexico, Nicaragua, Panama, Peru, Venezuela
Dactylosternum subrotundum (Fabricius, 1792)	Colombia (?), Peru
Phaenonotum exstriatum (Say, 1835)	Argentina?, Brazil?, Colombia [Quindío], Costa Rica, Cuba, Dominican Republic, Guatemala, Jamaica, Lesser Antilles, Mexico, Panama, Puerto Rico, USA
Phaenonotum globulosum (Mulsant, 1844)	Argentina, Brazil, Colombia [Bolívar (Cartagena)], Guatemala, Mexico, Nicaragua
Phaenonotum sp. 1	Colombia [Quindío]
Tribe Megasternini	
Cercyon variegatus Sharp, 1882	Argentina, Brazil, Colombia*, Guatemala, Jamaica, Lesser Antilles, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Venezuela
Motonerus apterus Fikáček and Short, 2006	Colombia [Norte de Santander (Chinácota)], Venezuela
Motonerus depressus Fikáček and Short, 2006	Colombia [Caldas (La Aquadita)]
Pelosoma cercyonoides Sharp, 1882	Colombia [Quindío], Guatemala, and Mexico
Pelosoma lafertei Mulsant, 1844	Argentina, Brazil, Colombia [Quindío], France, Guatemala, Italia, Mexico, Nicaragua, Panama, Venezuela
Pelosoma sordidum Sharp, 1882	Colombia*, Costa Rica, Ecuador, Guatemala, Mexico, Trinidad and Tobago
Tribe Omicrini	
Aculomicrus testudo Smetana, 1975	Colombia [Vale del Cauca (Anchicaya)]
Omicrus intermedius Smetana, 1975	Colombia [Amazonas (Leticia)], Costa Rica, Mexico, Panama, USA
Omicrus laevipennis Smetana, 1975	Colombia [Vale del Cauca (Anchicaya, San Andres)], Panama

Table 2. Distribution records of Hydrophilidae species in Quindío Department municipalities (*New records from Colombia, † New records from Quindío Department).

Species	Filandia	Quimbaya	Circasia	Salento	Montene-gro	Armenia	Calarcá	La Tebaida	Córdoba
Helochares abbreviatus †								x	
H. atratus *†								x	
Crenitulus solstitialis *†	x	x	x	x	x		x	x	x
C. suturalis *†	x	x	x	x	x		x	x	x
Enochrus circumcinctus *†		x						x	
E. lampros *†								x	
E. paraensis *†		x							
E.pygmaeus *†	x	x					x	x	x
E. sharpi *†				x	x			x	
E. sublongus *†		x			x			x	
Berosus truncatipennis *†								x	
Derallus terranovae *†								x	
Hemiosus aequatorialis *†		x						x	x
Hydrophilus ensifer †					x			x	
Tropisternus apicipalpis †					x		x	x	
T. collaris †				x				x	x
T. sharpi †								x	
Paracymus insularis †		x						x	x
P. limbatus †		x						x	
Phaenonotum exstriatum *†								x	
P. sp. 1 *†								x	
Pelosoma cercyonoides *†		x	x			x			
P. lafertei *†		x				x	x		



Figures 1–12. Dorsal habitus of some species of Hydrophilidae found in Quindío Department, Colombia. **1, 2.** *Helachares* spp. **1.** *H. abbreviatus*, **2.** *H. atratus*. **3, 4.** *Crenitulus* spp. **3.** *C. solstitialis*. **4.** *C. suturalis*. **5–10.** *Enochrus* spp. **5.** *E. circumcinctus*. **6.** *E. lampros*. **7.** *E. paraensis*. **8.** *E. pygmaeus*. **9.** *E. sharpi*. **10.** *E. sublongus*. **11.** *Berosus truncatipennis*. **12.** *Hydrophilus ensifer*. Scale bars = 1mm.

lobe; apices slightly rounded with inner margins produced and tooth-like projection on outer margins; dorsal lobule narrow, swollen apically with two protuberances; ventral lobule shorter and wider than dorsal lobule, acuminate at apex.

Geographic distribution. Argentina (Misiones), Bolivia, Brazil, Colombia, Costa Rica, Cuba, Guyana, Lesser Antilles, Panama, Paraguay, Surinam, and Venezuela. First record from Quindío Department.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°41′ 30.1″ N, 075°83′98.1″ W, 1057 m above mean sea level [a.m.s.l.], 2014-X-10. L.M. González col., CIUQ 10636–10642 (8 males, 10 females)

Remarks. Specimens were collected from ponds with muddy/sandy and muddy/leaf litter substrates and in marshes with predominance of muddy substrate and saturated litter.

Helochares atratus Bruch, 1915 (Figs 2, 25)

Helochares atratus Bruch 1915: 451. (Not a syn. of *gibbus* Brullé (= *ventricosus* Bruch), as in Orchymont 1926: 236).
Helochares (*Helochares*) *atratus* Knisch 1925: 4.
Helochares (*Helochares*) *pallipes* Orchymont 1926: 236–237.
Helochares (s. str) *parhedrus* Orchymont 1939: 259. Syn.: Fernández 1982: 35.

Diagnosis. Body 6.10–6.80 mm long. Dorsal punctation on elytra finer and sparser than head and pronotum. Serial punctures on rows 8, 9 and 10 of elytra deeply impressed. Mesoventral process slightly elevated, rounded in lateral view. Last ventrite weakly notched. Parameres longer than median lobe, apices slightly rounded; dorsal lobule wide, bifid at apex, each production of apex slightly acute, turned inward.

Geographic distribution. Argentina, Brazil, Ecuador, and Paraguay. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′46.9″ N, 075°50′34.2″ W, 1031 m a.m.s.l., 2015-II-04. L.M. González col., CIUQ 10643 (2 males).

Remarks. Specimens were collected from marshes with muddy substrate and saturated litter.

Subfamily Chaetarthiinae
Tribe Anacaenini

Crenitulus solstitialis (Kirsch, 1873) (Figs 3, 26)

Hydrobius solstitialis Kirsch 1873: 133.
Paracymus solstitialis (Kirsch)—Zaitzev 1908: 380; generic assignment.
Anacaena solstitialis (Kirsch)—Orchymont 1933: 304; generic assignment.
Anacaena perplexa Orchymont 1942: 39.
Anacaena perspicua Orchymont 1942: 40.
Crenitulus solstitialis (Kirsch)—Fikáček and Vondráček 2014: 502.

Diagnosis. Body 1.40–1.90 mm long. Body oval in shape. Clypeus, front, pronotum and elytra black or dark to light brown. Dorsal punctation on head, pronotum and elytra fine and dense. Elytra with longitudinal rows of punctures black, sometimes seeming to form striae. Antennae with 9 antennomeres. Mesoventral process slightly elevated. Procoxae pubescent, with five spine-like projections. Parameres longer than phallobase; median lobe narrow and crown-shaped at apex.

Geographic distribution. Widely distributed in North, Central, and South America. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′ 50.4″ N, 075°51′09.3″, 998 m a.m.s.l., 2015-I-30. L.M. González coll., CIUQ 10443–10468 (1083 males, 1767 females). Quimbaya Municipality, Manabí neighborhood, 04°36′48.4″ N, 075°51′58.9″ W, 965 m a.m.s.l., 2015-II-03. L.M. González coll., CIUQ 10447–10482 (136 males, 229 females). Córdoba Municipality, Río Verde neighborhood, 04°24′15.0″ N, 075°43′32.6″ W, 1100 m a.m.s.l., 2015-I-27. L.M. González coll., CIUQ 10473–10480 (520 males, 871 females). Circasia Municipality, Membrillal neighborhood, 04°37′35.0″ N, 075°38′30.0″ W, 1700 m a.m.s.l., 2007-IX-22, A.L García coll., CIUQ 12725 (6 males, 11 females). Calarcá Municipality, La Virginia neighborhood, 04°29′30.0″ N, 075°38′27.0″ W, 1650 m a.m.s.l., 2007-IX-23, A.L García col., CIUQ 12726 (21 males, 36 females). Salento Municipality, Boquía neighborhood, 04°38′46.1″ N, 075°34′52.56″ W, 2500 m a.m.s.l., 2007-IX-25, A.L García coll., CIUQ 12727 (8 males, 13 females). Filandia Municipality, Cruces neighborhood, 04°41′17.0″ N, 075°36′29.2″ W, 1800 m a.m.s.l., 2008-II-14, A.L García coll., CIUQ 12728 (5 males, 8 females). Montenegro Municipality, Silencio neighborhood, 04°29′50.0″ N, 075°47′16.2″ W, 1180 m a.m.s.l., 2007-II-02, A.L García coll. CIUQ 12729 (4 males, 6 females).

Remarks. Specimens were found on the banks of rivers, ponds and marshes, on different substrates: submerged vegetation, stony/sandy, and muddy.

Crenitulus suturalis (LeConte, 1866) (Figs 4, 27)

Limnebius suturalis Leconte 1866: 366–367.
Hydrobius suturalis (Leconte)—Horn 1873: 136, generic assignment.
Creniphilus suturalis (Leconte)—Horn 1890: 272, generic assignment.
Paracymus suturalis (LeConte)—Zaitzev 1908: 380, generic assignment.
Crenitulus suturalis (LeConte)—Winters, 1926: 54, generic assignment.
Anacaena suturalis (Leconte)—Orchymont, 1933: 302, generic assignment.
Hydrobius debilis Sharp 1882: 65.
Paracymus debilis (Sharp)—Zaitzev 1908: 379, generic assignment.
Anacaena debilis (Sharp)—Orchymont 1933: 305, generic assignment.
Anacaena moreirai Orchymont 1921a: 245.
Anacaena pescheti Orchymont 1921a: 247.
Paracymus attenuatus Orchymont 1921a: 248.
Anacaena attenuata (Orchymont)—Orchymont 1933: 305, generic assignment.
Anacaena cordobana Knisch 1924b: 122.
Anacaena morosa Orchymont 1942: 41.

Anacaena peta Orchymont 1942: 42.
Anacaena morula Orchymont 1942: 46.
Anacaena sternalis Leech 1948: 447.
Crenitulus suturalis (LeConte)—Fikáček and Vondráček, 2014: 502.

Diagnosis. Body 1.50–2.10 mm long. Body elongate oval in shape, attenuated posteriorly. Dorsal punctation on head and elytra fine. Clypeus, front, pronotum and elytra black; pronotum and elytra with brown to light brown area at margins. Antennae with 9 antennomeres, apical antennomere elongate. Mesoventral process weakly elevated or absent. Pubescence on metafemur sparse. Parameres almost as long as phallobase, slightly acuminate at apex. Median lobe shorter than parameres, crown-shaped at apex.

Geographic distribution. Widely distributed from Canada to Argentina. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′46.9″ N, 075°50′34.2″ W, 1031 m a.m.s.l., 2015-II-04, L.M. González coll., CIUQ 10487–10494 (20 males, 14 females). Quimbaya Municipality, Manabí neighborhood, 04°36′48.4″ N, 075°51′58.9″ W, 965 m a.m.s.l., 2015-II-03, L.M. González coll., CIUQ 10483–10486, CIUQ 10495–10497, CIUQ 10506 and CIUQ 10507 (169 males, 114 females). Córdoba Municipality, Santo Domingo neighborhood, 04°24′19.8″ N, 075°43′35.8″ W, 1112 m a.m.s.l., 2015-I-27, L.M. González coll., CIUQ 10498–10505 (30 males, 20 females). Calarcá Municipality, La Virginia neighborhood, 04°29′30.0″ N, 075°38′27.0″ W, 1650 m a.m.s.l., 2007-IX-23, A.L García coll., CIUQ 12730 (15 males, 10 females). Salento Municipality, San Juan de Carolina neighborhood, 04°35′46.4″ N, 075°43′37.5″ W, 1510 m a.m.s.l., 2007-IX-25, A.L García coll., CIUQ 12731 (19 males, 12 females). Circasia Municipality, Membrillal neighborhood, 04°37′35.0″ N, 075°38′30.0″ W, 1700 m a.m.s.l., 2007-IX-22, A.L García coll., CIUQ 12732 (35 males, 23 females). Filandia Municipality, Cruces neighbourhood, 04°41′17.0″ N, 075°36′29.2″ W, 1800 m a.m.s.l., 2008-II-14, A.L García coll., CIUQ 12733 (3 males, 2 females).Montenegro Municipality, Silencio neighborhood, 04°29′50.0″ N, 075°47′16.2″ W, 1180 m a.m.s.l., 2007-II-02, A.L García coll. CIUQ 12734 (16 males, 11 females).

Remarks. Specimens were collected in ponds, riverbanks and marshes, on submerged vegetation, as well as muddy and stony/sandy substrates.

Subfamily Enochrinae

Enochrus* (*Methydrus*) *circumcinctus (Bruch, 1915)
(Figs 5, 28)
Philhydrus circumcinctus Bruch 1915: 454.
Enochrus (*Lumetus*) *circumcinctus* (Bruch)—Knisch 1924a: 208.
Enochrus circumcinctus (Bruch)—Blackwelder 1944: 172.
Enochrus (*Methydrus*) *circumcinctus* (Bruch)—Fernández 1989: 126

Diagnosis. Body 3.20–4.25 mm in length. Head dark brown to black with triangular reddish-brown area in front of eyes; elytra dark brown, pale brown at margins. Prosternum not carinate. Mesoventral process with laminar medial elevation, triangular, slightly concave at anterior portion, rounded anteriorly with a small tooth-like projection pointed posteriad. Last abdominal ventrite deeply notched. Parameres wide at base, acute at apex, longer than median lobe; median lobe triangular, strongly acute at apex.

Geographic distribution. Argentina, Paraguay and Uruguay. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′ 46.9″ N, 075°50′34.2″ W, 1031 m a.m.s.l., 2015-II-04, L.M. González coll., CIUQ 10585–10593 (42 males, 99 females). Quimbaya Municipality, Manabí neighborhood, 04°36′48.4″ N, 075°51′58.9″ W, 965 m a.m.s.l., 2015-II-03, L.M. González coll. CIUQ 10594 (1 male)

Remarks. This species was found in marshes on submerged vegetation, in temporary ponds on muddy/stony substrates, and in streams on stony/sandy substrates.

Enochrus* (*Methydrus*) *lampros Kirsch, 1924
(Figs 6, 29)
Enochrus (*Lumetus*) *lampros* Kirsch, 1924b: 124.
Enochrus (*Methydrus*) *lampros* Kirsch; Fernández, 1997: 28.

Diagnosis. Body 3.15–3.85 mm long. Head black with triangular yellow area in front of eyes; pronotum and elytra light brown. Dorsal punctation on elytra weaker than those on head and pronotum. Prosternum strongly carinate. Mesoventral process elevated. Last abdominal ventrite deeply notched, as deep as a quarter of the ventrite length. Parameres as long as phallobase, longer than median lobe, rounded at apex, outer margin concave at medial portion.

Geographic distribution. Argentina, Bolivia, Brazil, Perú and Venezuela. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Murillo neighborhood, 04°29′01.5″ N, 075°45′ 44.2″ W, 1050 m a.m.s.l., 2015-I-24, A.L García coll., CIUQ 12735 (4 males, 2 females)

Remarks. Specimens were found in ponds on stony substrate and submerged vegetation.

Enochrus* (*Methydrus*) *paraensis Fernández, 1997
(Figs 7, 30)

Diagnosis. Body 2.80–3.60 mm long. Head, pronotum and elytra light brown. Prosternum slightly elevated with a small tooth-like projection on anterior portion. Mesoventral process strongly carinate, posterior margin of carina angulate in lateral view. Parameres longer than phallobase, rounded at apex; median lobe shorter than parameres, convex at apex.

Geographic distribution. Brazil. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, Quimbaya Municipality, Manabí neighborhood, 04°36′ 46.7″ N, 075°51′59.6″ W, 995 m a.m.s.l., 2015-II-03-02, L.M. González coll., CIUQ 10602 and 10603 (9 males, 4 females)

Remarks. Specimens were collected in streams on stony/ sandy substrates.

Enochrus* (*Methydrus*) *pygmaeus (Fabricius, 1792)
(Figs 8, 31)

Hydrophilus pygmaeus Fabricius, 1792: 186..
Hydrobius pygmaeus (Fabricius)—Gemminger and Harold 1868: 480.
Enochrus (*Lumetus*) *pygmaeus* (Fabricius)—Zaitzev 1908: 388 (as genus dubium) (generic placement confirmed by Orchymont 1933: 307).
Enochrus (*Methydrus*) *pygmaeus* (Fabricius)—Young 1954: 176.
Enochrus (*Methydrus*) *rossi* Leech 1948: 451. Syn.: Gundersen 1977: 257.

Diagnosis. Body 2.70–4.80 mm long. Head, pronotum and elytra light brown, part of clypeus black. Prosternum slightly carinate. Mesoventral process with laminar medial elevation, triangular, anterior margin with a small tooth-like projection pointed posteriad. Parameres as long as phallobase, narrow and rounded at apex with apical outer margins convex; median lobe shorter than parameres, narrow and strongly acute at apex.

Geographic distribution. Bahamas Islands, Belize, Cuba, Costa Rica, Dominican Republic, Haiti, Jamaica, Mexico, Nicaragua, Puerto Rico, USA, and Virgin Islands. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′47.6″ N, 075°50′29.2″ W, 1064 m a.m.s.l., 2015-II-04, L.M. González coll., CIUQ 10514–10517, and CIUQ 10519–10536 (581 males, 421 females). Quimbaya Municipality, La Buenavista neighborhood, 04°37′30.5″ N, 075°44′40.3″ W, 1291 m a.m.s.l., 2015-I-24, L.M. González coll., CIUQ 10537 (1 male). Quimbaya Municipality, Manabí, neighborhood, 04°36′48.4″ N, 075°51′58.9″ W, 965 m a.m.s.l., 2015-II-03, L.M. González coll., CIUQ 10518, CIUQ 10545 and CIUQ 10546 (38 males, 28 females). Córdoba Municipality, Río Verde neighborhood, 04°24′11.3″ N, 075°43′20.9″ W, 1139 m a.m.s.l., 2015-I-31, L.M. González coll., CIUQ 10538, CIUQ10539, CIUQ10543, and CIUQ 10544 (12 males, 8 females). Córdoba Municipality, Santo Domingo neighborhood, 04°24′26.8″ N, 075°43′30.5″ W, 1158 m a.m.s.l., 2015-I-27, L.M. González coll., CIUQ 10540–CIUQ 10542 (11 males, 9 females). Calarcá Municipality, Santo Domingo neighborhood Bajo, 04°24′32.4″ N, 075°43′27.1″ W, 1450 m a.m.s.l., 2007-IX-23, A.L García coll., CIUQ 12736 (4 males, 2 females). Filandia Municipality, La Julia neighborhood, 04°24′35.0″ N, 075°40′12.4″ W, 1020 m a.m.s.l., 2008-I-20, A.L García coll., CIUQ 12737 (1 male).

Remarks. Specimens were collected in ponds on muddy, muddy/sandy, muddy/leaf litter substrates, as well as in marshes on submerged vegetation and in streams on stony/sandy substrate.

Enochrus* (*Methydrus*) *sharpi Gundersen, 1977
(Figs 9, 32)

Enochrus (*Methydrus*) *sharpi* Gundersen 1977: 262.

Diagnosis. Body 3.00–4.20 mm long. Head black, with triangular light brown area in front of eyes; pronotum and elytra light brown. Prosternum not carinate, completely pubescent. Mesoventral process rectangular, with a small tooth-like projection pointed posteriad. Last abdominal ventrite shallowly notched. Parameres longer than phallobase, laterally convex; median lobe acute, triangular, with corona subapical (on apical third); phallobase as long as parameres, narrowing at distal half.

Geographic distribution. Mexico and Puerto Rico. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, Montenegro Municipality, El Gigante neighborhood, 04°33′55.2″ N, 075°48′54.4″ W, 1060 m a.m.s.l., 2007-VIII-30, A.L García coll., CIUQ 13275 (1 male, 2 females). La Tebaida Municipality, Pizamal neighborhood, 04°25′24.0″ N, 075°51′36.0″ W, 1140 m a.m.s.l., 2007-X-03, A.L García coll., CIUQ 13276 (1 male, 1 female). Salento Municipality, Boquia neighborhood, 04°38′46.1″ N, 075°34′52.5″ W, 2200 m a.m.s.l., 2007-IX-28, A.L García coll., CIUQ 13277 (2 males, 3 females).

Remarks. Specimens were collected in ponds on grass with muddy substrates.

Enochrus* (*Methydrus*) *sublongus (Fall, 1926)
(Figs 10, 33)

Philhydrus elongatulus Fall 1924: 85, primary homonym of *Philhydrus elongatulus* MacLeay, 1871.
Philhydrus sublongus Fall, 1926: 125, replacement name for *P. elongatulus* Fall.
Enochrus (*Methydrus*) *sublongus* (Fall)—Winters 1927: 20.
? *Enochrus* (*Methydrus*) *curialis* Knisch 1924c: 55. Syn. *dubium*: Gundersen 1978: 24.

Diagnosis. Body 2.25–2.70 mm long. Coloration yellow, dark brown to black on medial portion of clypeus and on front. Dorsal punctation on head, pronotum and elytra weakly marked. Prosternum not carinate. Mesoventral process with a slightly longitudinal elevation, not laminar. Parameres slender on distal third, acuminate at apex, strongly convex laterally; median lobe acute, subtriangular.

Geographic distribution. Argentina, Guatemala, Paraguay, and USA. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′

46.9″ N, 075°50′34.2″ W, 1031 m a.m.s.l., 2015-II-04, L.M. González coll., CIUQ 10568–10582 (221males, 196females). Quimbaya Municipality, Manabí neighborhood, 04°36′48.4″ N, 075°51′58.9″ W, 965 m a.m.s.l., 2015-II-03, L.M. González coll., CIUQ 10567, CIUQ 10583 and CIUQ 10584 (2 males, 1 female). Montenegro Municipality, El Gigante neighborhood, 04°34′22.3″ N, 075°51′11.6″ W, 1060 m a.m.s.l., 2007-VIII-30, A.L García coll., CIUQ 13278 (4 males, 2 females).

Remarks. Specimens were found in streams on stony/sandy substrate, in marshes on muddy substrate and submerged vegetation, and in ponds on muddy, muddy/sandy, muddy/leaf litter and muddy/stony substrates.

Subfamily Hydrophilinae
Tribe Berosini

Berosus truncatipennis Castelnau, 1840
(Figs 11, 34, 35)
Berosus truncatipennis Castelnau 1840: 56.
Berosus (*Enoplurus*) *truncatipennis* Castelnau—Zaitzev 1908: 357.
Berosus truncatipennis Castelnau—Oliva 1989: 184.

Diagnosis. Body 5.60–6.50 mm long. Body elongate in shape. Dorsal coloration pale brown; pronotum darker on medial portion, with a pale brown medial line, suboval in shape. Prosternum not carinate. Mesoventral process laminar, slender, convex anteriorly, with acute tooth-like projection on anterior portion and concave on posterior margin in lateral view. Last abdominal ventrite deeply notched. Parameres wide, acuminate at apex, with long ventral setae on apical portion, membranous inner appendices present; median lobe slender, cylindrical, shorter than half of the parameres length, apices slightly bifid.

Geographic distribution. Argentina, Bolivia, Brazil, Peru, Panama, Paraguay, and Venezuela. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′57.8″ N, 075°50′49.9″ W, 1064 m a.m.s.l., 2015-I-28, L.M. González coll., CIUQ 10430–CIUQ 10442 (119 males, 110 females).

Remarks. Specimens were collected in marshes on muddy substrate and on submerged vegetation; in ponds on muddy/sandy, muddy/stony and muddy/leaf substrates.

Derallus terranovae Oliva, 1983 (Figs 13, 37)
Derallus terranovae Oliva 1983: 348.

Diagnosis. Body 2.20–2.30 mm long. Dorsal coloration evenly black. Punctation on head fine and dense, on pronotum fine and sparse, on elytra strongly impressed forming longitudinal striae. Mesoventral process elevated with a tooth-like projection on anterior margin and a posterior elevation. Parameres shorter than median lobe, widened and rounded at apex; median lobe cylindrical, apex rounded; phallobase somewhat as long as parameres.

Geographic distribution. Brazil (Amazonia), Panama, and Venezuela. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°41′30.1″ N, 075°83′98.1″ W, 1057 m a.m.s.l., 2014-X-10, L.M. González coll., CIUQ 10508–10511 (5 males, 3 females).

Remarks. Specimens were collected in marshes on muddy substrate and on submerged vegetation.

Hemiosus aequatorialis Oliva, 1994 (Figs 14, 38)
Hemiosus aequatorialis Oliva 1994: 283.

Diagnosis. Body 2.30–2.50 mm long. Head and pronotum black with greenish to reddish metallic sheen; elytra pale brown with black maculae. Punctation on head and pronotum dense and strongly impressed; elytral striae strongly impressed. Mesoventral process strongly elevated, deeply hollowed longitudinally, in lateral view anterior margin strongly projected as a tooth, followed by a smaller elevation almost as high as anterior tooth, posterior portion also salient. Parameres longer than median lobe, apices slightly acuminate, concave on outer margin, straight on inner margin; median lobe wide basally, slightly slender and rounded at apex; phallobase somewhat shorter than parameres.

Geographic distribution. Peru and Venezuela. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′47.5″ N, 075°51′11.1″ W, 1030 m a.m.s.l., 2015-I-29, L.M. González coll., CIUQ 10628–10632 (22 males, 16 females). Córdoba Municipality, Santo Domingo neighborhood, 04°24′20.3″ N, 075°43′29.1″ W, 1166 m a.m.s.l., L.M. González coll., CIUQ 10634 (2 males, 1 female). Quimbaya Municipality, Manabí neighborhood, 04°36′48.4″ N, 075°51′58.9″ W, 965 m a.m.s.l., 2015-II-03, L.M. González coll., CIUQ 10635 (6 males, 5 females).

Remarks. Specimens were collected along riverbanks and in temporary ponds on muddy leaf litter as well as on muddy/stony and stony/sandy substrates.

Tribe Hydrophilini

Hydrophilus ensifer Brullé, 1837 (Figs 12, 36)
Hydrophilus ater Olivier 1792: 125, primary homonym of *Hydrophilus ater* Gmelin, 1790.
Hydrous ater (Olivier)—Cristofori and Jan 1832: 31.
Stethoxus ater (Olivier)—Solier 1834: 307.
Hydrous (*Pagipherus*) *ater* (Olivier)—Kuwert 1893: 90.
Hydrophilus ater Fabricius 1792: 183, primary homonym of *Hydrophilus ater* Gmelin, 1790 and *Hydrophilus ater* Olivier, 1792. Syn.: Castelnau 1840: 49.
Hydrophilus (*Hydrocus*) *ensifer* Brullé 1837: 52. Syn.: Bedel 1881a: xciv (sub nomine *ater* Olivier).
Stethoxus (s. str.) *ensifer* (Brullé)—Orchymont 1943: 69 (reinstated as valid name).

Hydrophilus (*Hydrocus*) *ovalis* Brullé 1837: 53. Syn.: Bedel 1881a: xciv.
Hydrous (*Pagipherus*) *brasiliensis* (Castelnau)—Kuwert, 1893: 90.

Diagnosis. Body 30–37 mm long. Body entirely black, except for the light brown labial and maxillary palps and antennae. Meso and metaventral process forming a long keel, posteriorly projected as a long spine which almost reaches posterior margin of the abdominal ventrite II. Glabrous portion of the ventrites III to V triangular in shape. Parameres apically projected outward with lateral tooth-like projection, slender and rounded at apex; median lobe subtriangular, shorter than parameres; phallobase longer than parameres.

Geographic distribution. Argentina, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, French Guyana, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Surinam, Uruguay, and Venezuela. First record from Quindío Department.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°41′30.1″ N, 075°83′98.1″ W, 1057 m a.m.s.l., 2014-X-10, L.M. González coll., CIUQ 10646–CIUQ 10650 (4 males, 5 females). Montenegro Municipality, El Gigante neighborhood, 04°34′22.3″ N, 075°51′11.6″ W, 1060 m a.m.s.l., 2007-VIII-30, A.L García coll., CIUQ 13279 (1 male, 1 female).

Remarks. Specimens were collected in marshes on muddy substrate and submerged vegetation.

Tropisternus apicipalpis Chevrolat, 1834 (Figs 15, 39)
Hydrophilus apicipalpis Chevrolat 1834: 44.
Tropisternus apicipalpis (Chevrolat)—Castelnau 1840: 53.
Tropisternus (*Cyphostethus*) *apicipalpis* (Chevrolat)—Orchymont 1921b: 364.
Tropisternus (*Pristoternus*) *apicipalpis* (Chevrolat)—Orchymont 1943: 54.
Tropisternus agilis Castelnau, 1840: 53. Syn.: Orchymont 1921b: 364.

Diagnosis. Body 14–16 mm in length. Color black with dark green sheen. Punctation on head fine and strongly impressed. Meso-metaventral process forming a long keel posteriorly projected as a long spine that reaches the anterior third of abdominal ventrite II. Last ventrite with strong spine-like elevation projected posteriad with a tuft of short golden setae at apex. Parameres truncate apically, slightly longer than median lobe, weakly narrower at apex than at base; median lobe acuminate and wide at apex, slightly wider sub-basally; corona U-shaped, apically bifid; phallobase shorter than parameres.

Geographic distribution Argentina, Bolivia, Brazil, Costa Rica, Cuba, Lesser Antilles, Mexico, Nicaragua, Paraguay, and Venezuela. First record from Quindío Department.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′ 46.9″ N, 075°50′34.2″ W, 1031 m a.m.s.l., 2015-II-04, L.M. González coll., CIUQ 10685–10690 (57 males, 42 females). Montenegro Municipality, El Gigante neighborhood, 04°34′22.3″ N, 075°51′11.6″ W, 1060 m a.m.s.l., 2007-VIII-30, A.L García coll., CIUQ 13280 (3 males, 1 female). Calarcá Municipality, Planadas Altas neighborhood, 04°27′05.4″ N, 075°39′22.3″ W, 2900 m a.m.s.l., 2007-IX-15, A.L García coll., CIUQ 13281 (1 male).

Remarks. Specimens were found in marshes and stream margins on stony and muddy substrates and on submerged vegetation.

Tropisternus collaris (Fabricius, 1775) (Figs 16, 40)
Hydrophilus collaris Fabricius 1775: 229.
Dytiscus collaris (Fabricius)—Goeze 1777: 615.
Tropisternus collaris (Fabricius)—Castelnau 1840: 54.
Hydrophilus lineatus Dejean 1821: 50, nomum nudum. Syn.: Orchymont 1919: 159.
Tropisternus lineatus (Dejean)—Solier 1834: 310, nomum nudum.

Diagnosis. Body 6–10 mm long. Dorsal coloration pale-brown to yellow, pronotum dark brown to black on medial portion with metallic green suboval spot. Punctation on head, pronotum and elytra fine and strongly impressed. Each elytron with four longitudinal metallic green lines. Prosternum elevated, medially opened, which receive anterior margin of mesoventrite process. Last abdominal ventrite with wide subtriangular protuberance, which overlaps ⅗ of ventrite length. Parameres sinuate on inner margin, projected on outer margin, wide at base, longer than median lobe; median lobe slender at apex, abruptly widened on basal half; phallobase somewhat shorter than parameres.

Geographic distribution. Argentina, Bolivia, Brazil, Colombia, Cuba, Haiti, Lesser Antilles, Mexico, Paraguay, Peru, Puerto Rico, USA, and Venezuela. First record from Quindío Department.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′ 47.6″ N, 075°50′29.2″ W, 1064 m a.m.s.l., 2015-II-04, L.M. González coll., CIUQ 10694–10713 (665 males, 328 females). Salento Municipality, San Juan de Carolina neighborhood, 04°35′46.4″ N, 075°43′37.5″ W, 2007-IX-25, 1510 m a.m.s.l., A.L García coll., CIUQ 13282 (3 males, 1 female). Córdoba Municipality, Corosal neighborhood, 04°24′19.5″ N, 075°43′37.0″ W, 1300 m a.m.s.l., 2007-X-05, A.L García coll., CIUQ 13283 (3 males, 2 females).

Remarks. Specimens were collected in ponds, in marshes, and along riverbanks, on muddy/sandy, muddy/leaf litter, muddy/stony, and muddy substrates, as well as on submerged vegetation.

Tropisternus sharpi Orchymont, 1922 (Figs 17, 41)
Tropisternus nigrinus Sharp 1883: 107.
Tropisternus (*Cyphostethus*) *sharpi* Orchymont 1922: 21 (replacement name for *nigrinus* sensu Sharp). *Tropisternus* (*Pristoternus*) *sharpi* Orchymont—Bachmann 1981: 8.

Diagnosis. Body 11–13 mm long. Head, pronotum and elytra dark brown. Meso-metaventral process forming a

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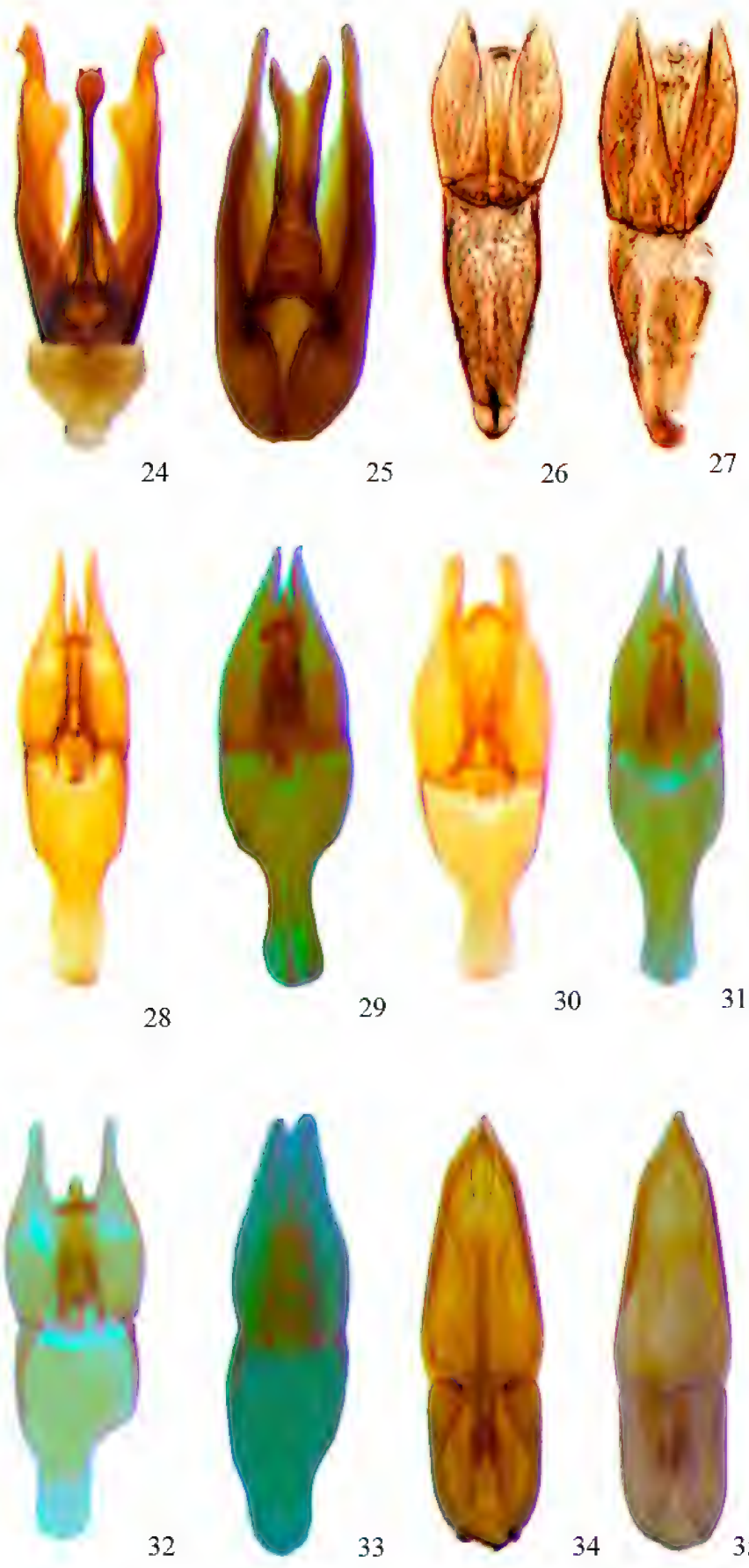
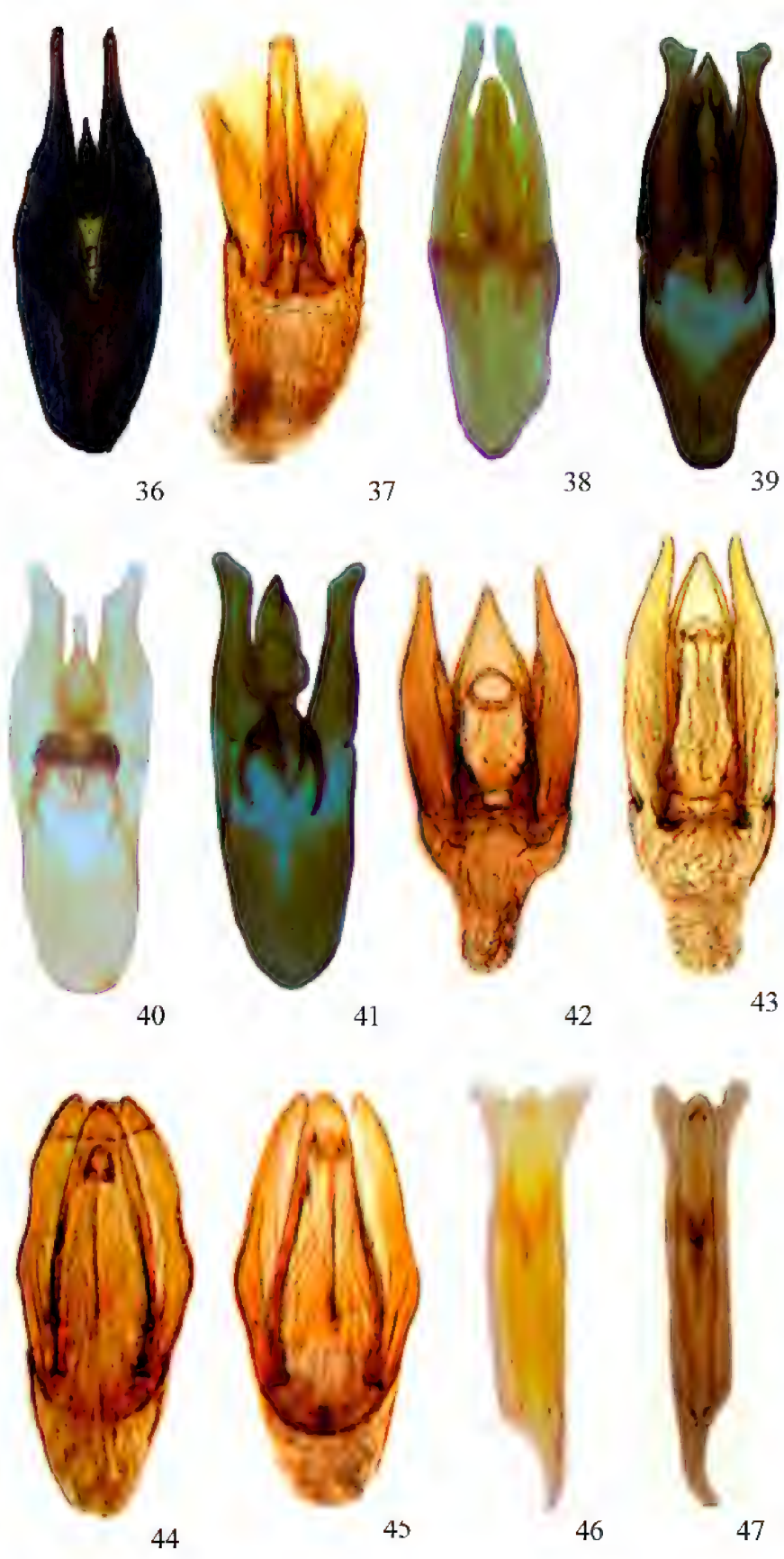
Figures 13–23. Dorsal habitus of some species of Hydrophilidae found in Quindío Deparment, Colombia. **13.** *Derallus terranovae*. **14.** *Hemiosus aequatorialis*. **15–17.** *Tropisternus* spp. **15.** *T. apicipalpis*. **16.** *T. collaris*. **17.** *T. sharpi*. **18–19.** *Paracymus* spp. **18.** *P. insularis*. **19.** *P. limbatus*. **20, 21.** *Phaenonotum* spp. **20.** *P. exstriatum*. **21.** *P.* sp.1. **22, 23.** *Pelosoma* spp. **22.** *P. cercyonoides*. **23.** *P. lafertei*. Scale bars = 1mm.



Figures 24–35. Aedeagus of some species of Hydrophilidae found in Quindío Department, Colombia. **24, 25.** *Helachares* spp. **24.** *H. abbreviatus*. **25.** *H. atratus*. **26, 27.** *Crenitulus* spp. **26.** *C. solstitialis*. **27.** *C. suturalis*. **28–33.** *Enochrus* spp. **28.** *E. circumcinctus*. **29.** *E. lampros*. **30.** *E. paraensis*. **31.** *E. pygmaeus*. **32.** *E. sharpi*. **33.** *E. sublongus*. **34, 35.** *Berosus truncatipennis*.



Figures 36–47. Aedeagus of some species of Hydrophilidae found in Quindío Department, Colombia. **36.** *Hydrophilus ensifer*. **37.** *Derallus terranovae*. **38.** *Hemiosus aequatorialis*. **39–41.** *Tropisternus* spp. **39.** *T. apicipalpis*. **40.** *T. collaris*. **41.** *T. sharpi*. **42, 43.** *Paracymus* spp. **42.** *P. insularis*. **43.** *P. limbatus*. **44, 45.** *Phaenonotum* spp. **44.** *P. exstriatum*. **45.** *P.* sp.1. **46, 47.** *Pelosoma* spp. **46.** *P. cercyonoides*. **47.** *P. lafertei*.

long keel posteriorly projected as a long spine that reaches medially of abdominal ventrite II length. Last ventrite with a short spine-like posteriad, little evident, with a tuft of golden setae at apex. Parameres longer than phallobase, laterally convex, median lobe acute, triangular, phallobase as long as parameres, narrowing at distal half.

Geographic distribution. Argentina, Brazil, Colombia, Paraguay, Uruguay, and Venezuela. First record from Quindío Department.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°41′ 30.1″ N, 075°83′98.1″ W, 1057 m a.m.s.l., 201-X-10, L.M. González coll., CIUQ 10691–10693 (2 males, 1 female).

Remarks. Specimens were collected in marshes on mud and submerged vegetation.

Tribe Laccobiini

Paracymus insularis Wooldridge, 1973 (Figs 18, 42)
Paracymus limbatus Wooldridge 1973: 119.

Diagnosis. Body 1.80–2.00 mm long. Dorsal coloration metallic green, pale brown on pronotal margins and on posterior third of elytra. Prosternum carinate, with a rounded tooth-like projection on anterior margin. Parameres slightly longer than median lobe, outer margin sinuate at apex and slightly convex on inner margin; median lobe with apex sharp, narrowed on the medial

portion; phallobase shorter than parameres.

Geographic distribution. Colombia. First record from Quindío Department.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°25′ 13.4″ N, 075°49′57.2″ W, 1034 m a.m.s.l., 2015-II-28, L.M. González coll., CIUQ 10673 and CIUQ 10674 (3 males, 1 female). Quimbaya Municipality, Manabí neighborhood, 04°36′46.7″ N, 075°51′59.6″ W, 995 m a.m.s.l., 2015-II-03, L.M. González coll., CIUQ 10670–10672, CIUQ 10675, and CIUQ 10676 (10 males, 7 females). Córdoba Municipality, Corosal neighborhood, 04°24′19.5″ N, 075°43′37.0″ W, 1200 m a.m.s.l., 2008-I-13, A.L García coll., CIUQ 13284 (8 males, 5 females).

Remarks. Specimens were found in ponds and along riverbanks, on muddy/leaf litter, muddy/sandy, stony/sandy and muddy substrates.

Paracymus limbatus Wooldridge, 1973 (Figs 19, 43)
Paracymus limbatus Wooldridge 1973: 120.

Diagnosis. Body 1.70–1.90 mm in length. Dorsal coloration metallic green, pale brown on pronotal margins and on posterior third of elytra. Prosternum with slightly elevation, rounded on anterior margin. Mesoventral process elevated on anterior margin with a small tooth-like projection directed posteriad. Parameres convex on outer margin; acute and slightly curve at apex. Median lobe triangular, slightly convex laterally, wider at base; phallobase strongly shorter than parameres; rounded apically.

Geographic distribution. Bolivia, Brazil, Colombia, Paraguay, Peru, Trinidad and Tobago, andVenezuela. First record from Quindío Department.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′ 46.9″ N, 075°50′34.2″ W, 1031 m a.m.s.l., 2015-II-04, L.M. González coll., CIUQ 10651, CIUQ 10652, and CIUQ 10655–CIUQ 10666 (72 males, 62 females). Quimbaya Municipality, Manabí neighborhood, 04°36′48.4″ N, 075°51′58.9″ W, 965 m a.m.s.l., 2015-II-03, L.M. González coll., CIUQ 10653, CIUQ 10654, and CIUQ 10667–10669 (14 males, 12 females).

Remarks. Specimens were collected in ponds and marshes and along riverbanks, on muddy/sandy, muddy/leaf litter, muddy/stony, and stony/sandy substrates.

Subfamily Sphaeridiinae
Tribe Coelostomatini

Phaenonotum exstriatum (Say, 1835) (Figs 20, 44)
Hydrophilus exstriatus Say 1835: 171.
Cyclonotum estriatum [sic] (Say)—Melsheimer 1853: 36, unjustified emendation.
Phaenonotum estriatum [sic] (Say)—Fleutiaux and Sallé 1889: 377, unjustified emendation.
Coelostoma minutum Castelanu 1840: 58. Syn.: Zaitzev 1908: 405.
Cyclonotum minutum (Castelanu)—Gemminger and Harold 1868: 495.
Cyclonotum globulosum Mulsant 1844b: 167.
Cyclonotum semiglobosum Zimmermann 1869: 250. Syn.: Orchymont 1941: 7.
Phaenonotum semiglobosum (Zimmermann)—Zaitzev 1908: 405.
Phaenonotum dubium Sharp 1882: 98. Syn.: Smetana 1978: 14.
Phaenonotum exstriatum (Say)—Orchymont 1941: 7.

Diagnosis. Body 2.30–4.00 mm long. Body oval in shape. Dorsal coloration entirely black. Dorsal punctation on head and pronotum fine and dense, on elytra coarser. Meso-metaventral process strongly elevated, acuminate on anterior margin, widened posteriorly, with dense punctation on surface. Parameres as long as median lobe, slightly acuminate at apex, outer margin sinuate; median lobe wider than parameres, slightly acuminate at apex; phallobase shorter than parameres.

Geographic distribution. Argentina?, Brazil? Costa Rica, Cuba, Dominican Republic, Guatemala, Jamaica, Lesser Antilles, Mexico, Panama, Puerto Rico, and USA. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′ 48.9″ N, 075°51′10.5″ W, 979 m a.m.s.l., 2015-I-22, L.M. González coll., CIUQ 10683 and CIUQ 10684 (3 males, 2 females).

Remarks. Specimens were collected in a marsh on muddy substrate and on submerged vegetation.

***Phaenonotum* sp. 1** (Figs 21, 45)

Diagnosis. Body 1.60–2.40 mm long. Body oval in shape. Dorsal coloration entirely black. Dorsal punctation on head and pronotum fine and dense, on elytra sparser. Meso-metaventral process slender and acuminate on anterior margin, widened posteriorly. Parameres as long as median lobe, apex slightly acuminate, convex on outer margin, wide medially; median lobe wider than parameres, slightly acuminate at apex; phallobase shorter than parameres.

Geographic distribution. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, La Tebaida Municipality, Pizamal neighborhood, 04°24′ 50.2″ N, 075°51′06.3″ W, 1012 m a.m.s.l., 2015-I-30, L.M. González coll., CIUQ 10678–10682 (11 males, 19 females).

Remarks. Specimens were found in marshes on muddy substrates and on submerged vegetation. *Phaenonotum* sp. 1 was very difficult to identify given that in many cases the genitalia have slight differences. The external morphology of this species needs to be carefully studied.

Tribe Megasternini

Pelosoma cercyonoides Sharp, 1882 (Figs 22, 46)
Pelosoma cercyonoides Sharp 1882: 111.

Diagnosis. Body 2.00–2.30 mm long. Dorsal coloration dark brown to black. Each elytron with ten striae with

Figure 48. Distribution map of species of Hydrophilidae in the Quindío Department, Colombia.

strongly impressed punctures. Prosternum slightly carinate medially with a small rounded tooth-like projection on anterior margin. Mesoventral process flat, elongate, pentagonal, acuminate on anterior margin and truncate on posterior margin, with punctures coarse and strongly impressed. Abdominal ventrite I carinate medially, slightly overlapping anterior margin of ventrite II. Parameres longer than median lobe, widened at apex and base, concave on inner margin; median lobe wide at base, narrow and rounded at apex; phallobase strongly asymmetrical at base.

Geographic distribution. Guatemala and Mexico. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, Armenia Municipality, Caimo-Arcoiris neighborhood, 04°27′55.0″ N, 075°44′40.2″ W, 1350 m a.m.s.l., 2010-XI-25, A.L García coll., CIUQ 13285 (2 males, 3 females). Circasia Municipality, Finca el Calamar neighborhood, 04°37′15.0″ N, 075°39′16.3″ W, 1480 m a.m.s.l., 2010-IX-22, A.L García coll., CIUQ 13286 (6 males, 4 females). Quimbaya Municipality, El Laurel neighborhood, Reserva Natural La Montaña del Ocaso, 04°34′59.9″ N, 075°49′16.3″ W, 1100 m a.m.s.l., 2010-VI-22, A.L García coll., CIUQ 13287 (3 males, 2 females). Quimbaya Municipality, Pizamal neighborhood, 04°25′24.0″ N, 075°51′36.0″ W, 950 m a.m.s.l., 2010-XII-21, A.L García coll., CIUQ 13288 (5 males, 3 females).

Remarks. Specimens were found in phytotelmata , including the inflorescence of *Calathea inocephala*, *C. lutea*, *Heliconia stricta*, and *H. latisphata*. These plants have characteristic small water tanks and show different stages of decomposition of their inflorescences.

Pelosoma lafertei (Mulsant, 1844) (Figs 23, 47)

Cercyon bicolor Dejean 1833: 134, nomen nudum. Syn.: Mulsant 1844a: 186.

Cercyon littorale var. *minutum* Dejean 1833: 134, nomen nudum. Syn.: Mulsant 1844a: 186).

Pelosoma lafertei Mulsant 1844a: 185.

Cercyon lafertei (Mulsant)—Fairmaire and Laboulbene 1854: 256.

Cercyon (*Pelosoma*) *lafertei* (Mulsant)—Bedel 1881b: lxxxvii.

Pelosoma meridionale Bruch 1915: 468. Syn.: Orchymont 1941: 14.

Diagnosis. Body 2.10–2.50 mm long. Head and pronotum reddish-brown, elytra slightly darker. Punctures on elytra strongly impressed forming ten longitudinal striae on each elytron. Prosternum slightly carinate on anterior quarter, anteriorly elevated as a rounded small tooth. Mesoventrite flat, pentagonal, elongate. Parameres as longer as or slightly longer than median lobe, widened and rounded at apex; median lobe wide basally, narrow and rounded at apex; phallobase asymmetrical.

Geographic distribution. Argentina, Brazil, Guatemala, Mexico, Nicaragua, Panama, and Venezuela; introduced to France and Italy. First record from Quindío Department and from Colombia.

Material examined. Colombia, Quindío Department, Quimbaya Municipality, El Jasmin neighborhood, Reserva la Guajira, 04°39′17.2″ N, 075°39′16.4″ W, 980 m a.m.s.l., 2010-VII-24, A.L García coll., CIUQ 13289 (1 male, 4 females). Calarcá Municipality, La Bella neighborhood, 04°29′15.3″ N, 075°49′31.6″ W, 1300 m

a.m.s.l., 2010-XII-29, A.L García coll., CIUQ 13290 (5 males, 4 females). Armenia Municipality, Neighborhood: Caimo-Arcoiris, 04°27′55.0″ N, 075°44′40.2″ W, 1350 m a.m.s.l., 2010-XI-25, A.L García coll., CIUQ 13291 (3 males, 2 females). Quimbaya Municipality, El Laurel neighborhood, Reserva Natural La Montaña del Ocaso, 04°35′19.0″ N, 075°49′56.7″ W, 1100 m a.m.s.l., 2010-VI-22, A.L García coll., CIUQ 13292 (2 males, 5 females).

Remarks. Specimens were found in phytotelmata in the inflorescence of *Calathea inocephala*, *C. lutea*, *Heliconia latisphata* and *H. stricta.* These plants have characteristic small water tanks and show different stages of decomposition of their inflorescences.

Discussion

Most of the knowledge about Colombian Hydrophilidae available is from late 19th to 20th centuries (e.g., Régimbart 1901, Orchymont 1921a, 1922, Zaitzev 1908, Leech 1943, Blackwelder 1944). Some of these works did not provide precise locality and almost never biological information. There is a clear lack of taxonomic data and knowledge on the distribution of this family, especially in Colombia, where the high diversity and the range of environments suitable to the occurrence of these beetles is little-studied.

Thirty-seven species of Hydrophilidae were previously known from Colombia. Even with the limited sampling made in Quindío Department, our study significantly improves our knowledge of this family with 16 new species records. Our list, as well as summarizing environmental and habitat information, gives an overview of the biodiversity of the Hydrophilidae species in the field. We hope that this study will be valuable as a foundation to guide students and researchers in future studies on the family. These data may enable the use of hydrophilid species in research on basic and applied ecology, sustainable use of water (Archangelsky and Durand 1992), biological control of agricultural pests (Koppenhofer and Schmutterer 1993), vectors of diseases (Shaalan and Canyon 2009), and even forensic sciences (Almeida and Mise 2009).

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Authors' Contributions

LMGR and ALGH collected the specimens and data, LMGR, ALGH and BC wrote the text.

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